I estimated the distance to be about 0″·6, and the magnitudes of the stars 5 and 6.5.

Mr. Gurney Barclay's Observatory,
Leyton, 1863, *April* 7.

Observations and Elements of Comet I. 1863.
By Hermann Romberg.

I have obtained the following observations of the Comet I., 1863:—

	M.G.T.	Δα Comet — Star.	Δδ Comet — Star.	
	h m s	m s	′ ″	
1863, Jan. 11	15 55 59·5	+9 15·230	+5 13·5	*a*
20	17 51 59·4	0 41·951	+7 9·4	*b*
24	17 58 35·5	1 36·834	+4 54·3	*c*
Feb. 3	16 59 16·0	0 17·832	−4 30·0	*d*
	17 39 9·5	+0 22·540	−5 18·1	*d*

The apparent places of the stars of comparison for the date of observation are,

	h m s	° ′ ″	
(*a*)	17 41 19·20	+38 56 8·5	Radcl.
(*b*)	19 16 28	34 2 0	Lal.
(*c*)	19 38 21·41	31 45 11·7	B. Z.
(*d*)	20 17 5·88	+26 41 30·8	B. Z.

The star (*b*) is given in Argelander's Northern Zones, Zon. +34°.

On Feb. 3d I compared the Comet with another star, and obtained, for the above times,

		m s	′ ″
Feb. 3		−1 34·568	−3 20·2
		−1 29·660	4 11·1
	18h 22m 50s·0	−1 24·547	−5 6·1

The apparent place of this latter star is nearly

20h 18m 28s·19 +26° 40′ 22″·3

The differences in Right Ascension and Declination are corrected for Refraction and Parallax; they are the means of at least six transits. The Comet's appearance was round and faint; but I discerned from the 20th of February a faint nucleus, which had on the 3d of February increased consider-

ably in brightness. Unfavourable weather in the morning hours prevented me from observing it any further.

I calculated the following parabolic elements from the observations, Berl., Dec. 5, Dec. 26, Leyton, Jan. 11, taking into the account the corrections of Aberration and Parallax:—

T	1863, Feb. 3·48790 M.G.T.	
	° ′ ″	
π	191 22 12·4	Mean Eq. 1863·0
☊	116 55 19·7	
i	85 21 34·2	
log q	9·9002614	
	Direct.	

These elements give for the mean place the error

C − O $\Delta\alpha = -0''{\cdot}7$ $\Delta\delta = +7''{\cdot}1$

On a mode of Figuring Glass Specula for the Newtonian Telescope. By the Rev. Henry Cooper Key.

As the subject of silvered glass specula is now beginning to attract some attention, I have taken the liberty of laying before the Society a brief account of the successful manufacture of these specula, including a method which I have suggested for producing with great ease and certainty the true parabolic figure necessary for first-rate performance.

The machine used for the purpose is the same in principle as that of the Earl of Rosse, and very similar in detail, but with some slight modification in the speed of the various parts. The number of strokes to one revolution of the speculum-plate is 104. The pin of the eccentric giving the side motion is carried from side to side with an unequal velocity by means of an oval wheel, whereby the centre is passed over rapidly and the action is prolonged at the two extremes. The number of revolutions of the side-motion eccentric to one revolution of the speculum-wheel is $5\frac{1}{2}$. The amounts of stroke and side-motion found to produce the best results are stroke = $\frac{1}{3}$ diameter of the speculum and side-motion $\frac{1}{4}$ the same; but precision on this point does not appear to be very material.

The glass disc is ground upon a cast-iron tool, of the same diameter as itself, carefully turned to the guage, and scored at right-angles into facets $\frac{5}{8}$-in. square; these grooves are filled up with wax or pitch until the rough grinding is complete, or nearly so. It is not absolutely necessary to work a concave iron tool upon the convex, the simplest plan being to figure